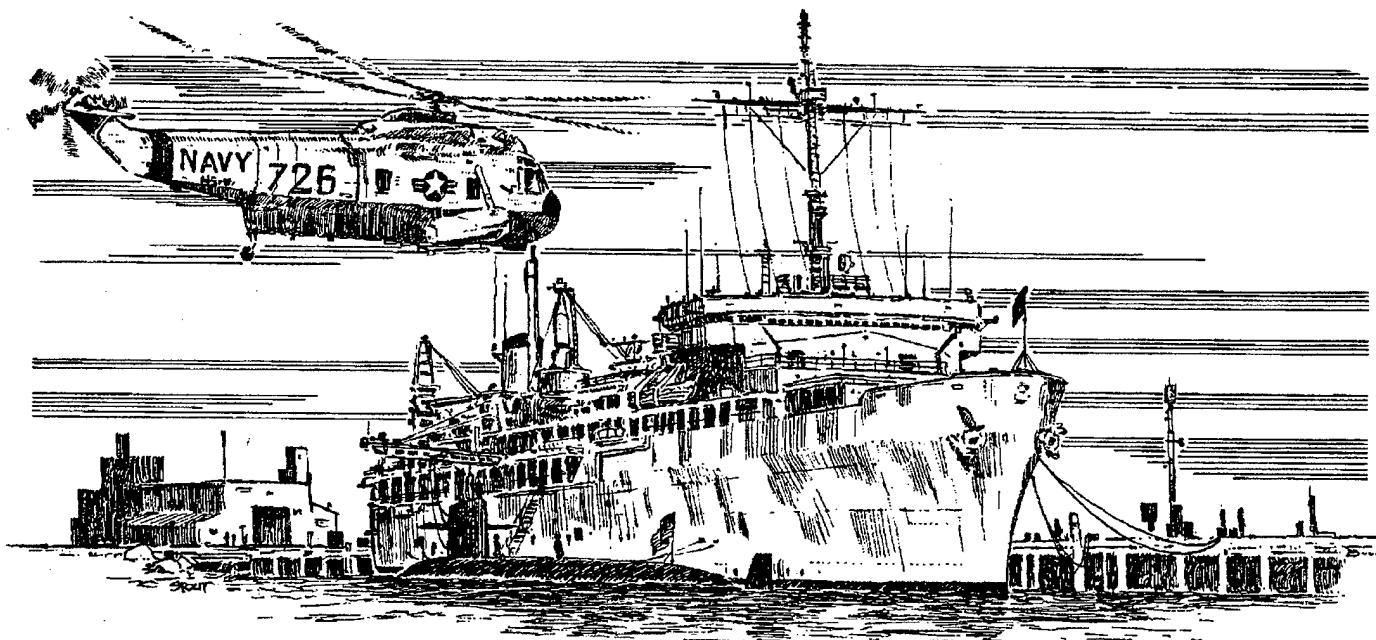


Navy Personnel Research and Development Center
San Diego, California 92152-7250

AP-99-3

August 1999



COMMAND HISTORY—CALENDAR YEAR 1998

19990809 010

DTIC QUALITY INSPECTED 4

Approved for public release; distribution unlimited.

Command History

Calendar Year 1998

Reviewed and approved by
Norma Zaske

Released by
William M. Keeney
Commander, U.S. Navy
Commanding Officer
and
Murray W. Rowe
Technical Director

Approved for public release distribution; is unlimited.

Navy Personnel Research and Development Center
53335 Ryne Road
San Diego, CA 92152-7250

REPORT DOCUMENTATION PAGE

Form Approved
OMB No. 0704-0188

Public reporting burden for this collection of information is limited to average 1 hour per response, including the time for reviewing instructions, searching existing data sources, gathering and maintaining the data needed, and completing and reviewing the collection of information. Send comments regarding the burden estimate or any other aspect of this collection of information, including suggestions for reducing this burden, to Washington Headquarters Services, Directorate for Information Operations and Reports, 1215 Jefferson Davis Highway, Suite 1204, Arlington, VA 22202-4302, and to the Office of Management and Budget, Paperwork Reduction Project (0704-0188), Washington, DC 20503.

1. AGENCY USE ONLY (Leave blank)	2. REPORT DATE	3. REPORT TYPE AND DATE COVERED	
	August 1999	Historical---Jan 98-Dec 98	
4. TITLE AND SUBTITLE Command History—Calendar Year 1998		5. FUNDING NUMBERS Center overhead	
6. AUTHOR(S) Samuel J. Polese.			
7. PERFORMING ORGANIZATION NAME(S) AND ADDRESS(ES) Navy Personnel Research and Development Center 53335 Ryne Road San Diego, CA 92152-7250		8. PERFORMING ORGANIZATION NPRDC-AP-99-3	
9. SPONSORING/MONITORING AGENCY NAME(S) AND ADDRESS(ES) Navy Personnel Research and Development Center 53335 Ryne Road San Diego, CA 92152-7250		10. SPONSORING/MONITORING	
11. SUPPLEMENTARY NOTES Functional Area: Manpower, Personnel, Training, Organizational Systems Product Line: Effort:			
12A. DISTRIBUTION/AVAILABILITY STATEMENT Approved for public release; distribution is unlimited.		12B. DISTRIBUTION CODE A	
13. ABSTRACT (Maximum 200 words) This report reflects the Navy Personnel Research and Development Center's 1998 operating philosophy, Commanding Officer and Technical Director biographies, history, organization, center resources, research and development program, Technical Director awards, and publications.			
14. SUBJECT TERMS Command history, manpower, personnel, training, organizational systems		15. NUMBER OF PAGES 34	
		16. PRICE CODE	
17. SECURITY CLASSIFICATION OF REPORT UNCLASSIFIED	18. SECURITY CLASSIFICATION OF THIS PAGE UNCLASSIFIED	19. SECURITY CLASSIFICATION OF ABSTRACT UNCLASSIFIED	20. LIMITATION OF ABSTRACT UNLIMITED

Contents

Introduction	1
Operating Philosophy	1
Commanding Officer's Biography	3
Technical Director's Biography	4
Historical Chronology.....	5
Organization	7
Mission	7
Philosophy	7
Vision	7
Goals.....	8
Functions	8
Center Resources.....	11
Funding.....	11
Personnel	12
Facilities	13
Research and Development Program	14
Workforce Management.....	14
Personnel and Organizational Assessment.....	14
Classroom and Afloat Training	15
Fleet Liaison Office	16
<u>SAILOR21</u>	16
Awards	16
Center Wins Prestigious MUC Award	17
Award Winning Technical Accomplishments	18
Professional Publications Award	19
Awards Ceremonies	19
Publications.....	21
Technical Reports.....	21
Technical Notes.....	21
Administrative Publications	22
Journal Articles and Book Chapters	23
Distribution List	

List of Figures

1. NAVPERSRANDCEN organization	2
2. 1998 reporting relationships (Department of the Navy Research, Development, Test, and Evaluation Organization).....	2
3. FY 1998 Funding by Appropriation (\$17.6M, 30 September 1998).	11



Aerial view of Point Loma in San Diego, California, home to NAVPERSRANDCEN

Introduction

The Navy Personnel Research and Development Center (NAVPERSRANDCEN) Command History for CY98 is submitted per OPNAVINST 5750.12. The history provides a permanent record of CY98 activities.

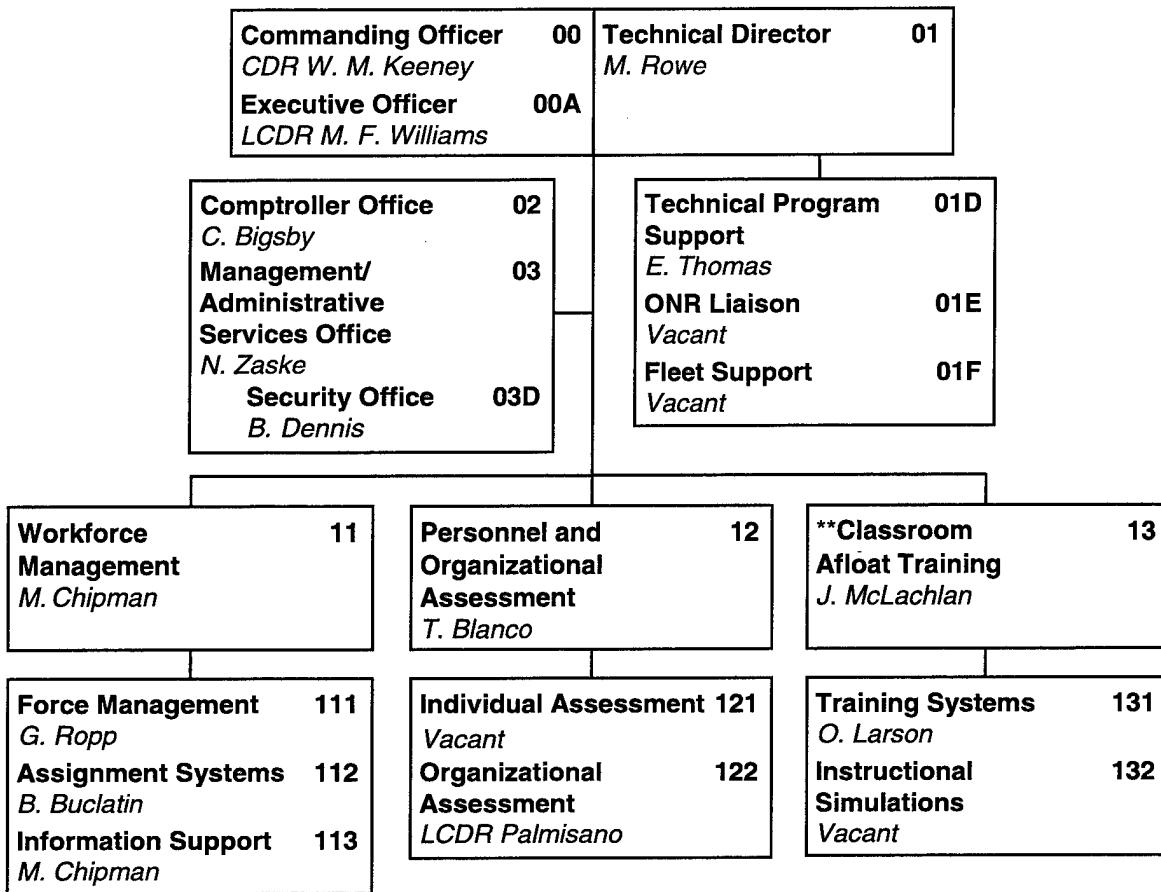
Operating Philosophy

NAVPERSRANDCEN is an applied research center, contributing to the personnel readiness of the Navy and Marine Corps. The Center develops better ways to attract qualified people to the naval services to: select the best, assign them where they are most needed, train each one effectively and efficiently, and manage our personnel resources optimally. By combining a deep understanding of operational requirements with first-rate scientific and technical abilities, the Center is unique in being able to develop new, useful knowledge and refine technology to address people-related issues. This dual expertise permits the Center to develop the technology base for improving the use of human resources within Navy systems and to apply state-of-the-art technology to solve emerging problems. The organizational structure of NAVPERSRANDCEN is represented in Figure 1. As a corporate asset, NAVPERSRANDCEN is responsive to the needs of manpower, personnel, and training managers in the Navy, Marine Corps, and Department of Defense (DoD); to the operating forces; and to the shore establishment that trains and supports the fleet.

The research and development (R&D) methods used by NAVPERSRANDCEN are derived from behavioral, cognitive, economic, and social sciences, as well as from applied mathematics, statistics and computer science. The application of these methods results in tangible products of use to the Navy and Marine Corps. NAVPERSRANDCEN constantly searches for technological opportunities to improve personnel readiness and to reduce manpower costs. We are accountable to the Chief of Naval Personnel (CHNAVPER), our sponsors, and our users for high productivity, strict ethics, honesty, integrity, professionalism, and perspective. The Center's reporting relationship is depicted in Figure 2.

As part of its operating philosophy, NAVPERSRANDCEN seeks to do as much of its work as possible in operational settings where the final products of our efforts are intended to be used. This helps to ensure that the needs and requirements of the users are met and that the users themselves become familiar with the operational capabilities of the particular products. In some cases, because of the close researcher and user interaction, interim or prototype products have been put into use before the final product has been completed.

Further interactions with operational commands involve a variety of manpower, personnel, and training (MPT) databases that NAVPERSRANDCEN has developed and maintained. Because NAVPERSRANDCEN is an in-house, corporate laboratory, these databases are readily available to support many different operational users and requirements.



*Human Resources and EEO functions are provided by NASNI

**This mission area was transferred to Naval Air Warfare Center Training Systems Division effective 1 February 1998.

Figure 1. NAVPERSRANDCEN organization.

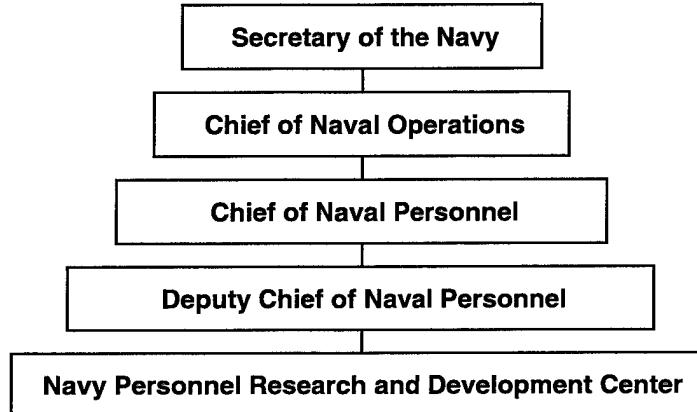


Figure 2. 1998 reporting relationships (Department of the Navy Research, Development, Test, and Evaluation Organization).

Commanding Officer's Biography



Commander William M. Keeney

A native of San Jose, California, Commander William Michael Keeney graduated from the U.S. Naval Academy and was commissioned an Ensign in June 1977. He received a Masters of Science Administration from Central Michigan University in 1993. He is also a graduate of the Armed Forces Staff College, the Naval Command and Staff College, and is an outstanding graduate of the Air War College.

Commander Keeney completed flight school in March 1979 and reported to Helicopter Antisubmarine Squadron TEN for Fleet Replacement Pilot training in the SH-3H helicopter. In October 1979, he reported to Helicopter Antisubmarine Squadron SIX, and deployed to Western Pacific and Indian Ocean in USS Constellation (CV-64) in 1980, and served aboard USS Enterprise (CVN-65), USS Kitty Hawk (CV-63) and USS Ranger (CV-61).

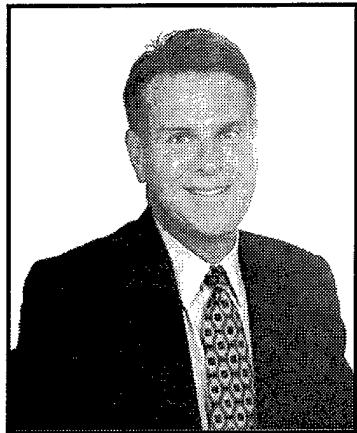
In August 1982, Commander Keeney reported to the Pre-establishment Unit, Helicopter Antisubmarine Light Forty ONE (HSL-41) to fly LAMPS MKIII helicopters. One of the Navy's first SH-60B Instructor Pilots, he served as the Instructor-Under-Training phase officer and instructed all phases of training. Commander Keeney transferred to Helicopter Antisubmarine Light FORTY THREE (HSL-43) in July 1985 and deployed in USS Thach (FFG-43) as the Detachment Maintenance Officer in May 1986 with the New Jersey (BB-62) Battle Group.

Commander Keeney returned to HSL-41 in December 1986 as the Aviation Safety Officer and flew as a STAN/EVAL Instructor Pilot. In December 1987 he transferred to HSL-43. As Detachment OIC in USS Curts (FFG-38), he led the first forward deployed LAMPS MKIII detachment to NAF Atsugi, Japan. He also served as Squadron Safety Officer and Operations Officer, and became the second Pacific Fleet pilot to achieve 2,000 SH-60B flight hours.

The Armed Forces Staff College (AFSC), Norfolk, VA was Commander Keeney's next assignment. He graduated in the last 5 1/2 month class at AFSC in June 1990, and then reported to the Joint Strategic Target Planning Staff (JSTPS), Offutt AFB, Nebraska, as aide to the Vice Director. During early 1992, he helped the transition of JSTPS and the establishment of U.S. Strategic Command (USSTRATCOM) and became aide to the Deputy CINC. His last year at USSTRATCOM was as Chief, Policy and Doctrine Branch in the Strategy and Policy Division of the J-5 (Plans and Policy) Directorate, where he worked on arms control, command relations, ballistic missile defense, and joint doctrine issues.

Commander Keeney reported as Executive Officer, NAVPERSRANDCEN in August 1993. In March 1997, Commander Keeney assumed the duty as Commanding Officer of the Navy Personnel Research and Development Center. His personal awards include: The Defense Meritorious Service Medal, Joint Commendation Medal, Navy Achievement Medal, National Defense Medal (with bronze star) and Navy Expeditionary Medal. He also is authorized two Joint Meritorious Unit Awards, three Military Unit Commendations, three Battle E's, and other service ribbons. He is married to the former Susan McAbee of Coronado, California. They have one son, Ryan, born in 1993 and a daughter, Caroline, born in 1997.

Technical Director's Biography



Mr. Murray W. Rowe

Mr. Murray Rowe grew up in Louisville, KY. He graduated from the University of Kentucky in 1973 with a B.A. in Economics and Mathematics and was elected to Phi Beta Kappa in 1972. He earned a Masters Degree in Economics from the University of Maryland in 1975.

Mr. Rowe came to Navy Personnel Research and Development Center (NAVPERSRANDCEN) as a research economist in 1976. From 1978 to 1989, he headed the Center's Force Management Division. In 1989, Mr. Rowe became the Director of the Manpower Systems Research Department. In 1988-89, he served a six-month tour as Science Advisor to the Chief of Naval Personnel, ADM J.M. Boorda. In 1994, Mr. Rowe became the Technical Director of NAVPERSRANDCEN.

Mr. Rowe has extensive research experience in personnel force management modeling and information system development for customers in the Bureau of Naval Personnel; the Navy Recruiting Command; Headquarters, U.S. Marine Corps; and the Office of the Secretary of Defense. For his work, Mr. Rowe was awarded the Navy Civilian Meritorious Service Medal in 1991. In 1997, he received the Department of the Navy Superior Civilian Service Award.

In July 1998, Mr. Rowe led an advance team of NAVPERSRANDCEN research scientists and support personnel to Millington, TN, where an NAVPERSRANDCEN office was established at the Navy Personnel Command. Mr. Rowe, his wife, Lee, and his younger son, Brett, reside in Collierville, TN. His older son, Bryan, is a Midshipman at the U.S. Naval Academy.



A number of NAVPERSRANDCEN employees and guests made their way to the Sub Base for a July 10 farewell party to wish good luck to a team of NAVPERSRANDCEN employees who were leaving to establish an advance NAVPERSRANDCEN office in Millington, TN, at the Navy Personnel Command. The advance team of researchers and support personnel was being led by the Technical Director, Mr. Murray Rowe, who joined NAVPERSRANDCEN in 1976 and became its TD in 1994. Many retired NAVPERSRANDCEN employees came by to give their best wishes to the team.

Historical Chronology

1 July 1951 The Naval Personnel Research Unit, San Diego, CA was established under the Bureau of Naval Personnel (BUPERS) to provide a personnel research facility close to the operating forces.

1 July 1952 The U.S. Naval Personnel Research Field Activity was established in Washington, DC to provide an activity close to Navy users and systems.

26 May 1961 SECNAV Notice 5450 redesignated the two field activities as U.S. Naval Personnel Research Activities.

10 December 1968 OPNAV Notice 5450 redesignated the Naval Personnel Research Activity, Washington, DC as the Naval Personnel Research and Development Laboratory due to increased emphasis on R&D.

1 August 1969 The Chief of Naval Operations (CNO) redesignated the Naval Personnel Research Activity, San Diego, CA, as the Naval Personnel and Training Research Laboratory.

1 May 1973 The Secretary of the Navy approved the establishment of NAVPERSRANDCEN, San Diego, CA to provide a corporate personnel laboratory with an in-depth capability in the behavioral and management sciences. This action consolidated those research functions assigned to the Naval Personnel Research and Development Laboratory, the Naval Personnel and Training Research Laboratory, and the Personnel Research Division of BUPERS.

17 May 1975 OPNAV Notice 5450 changed command and support responsibility for NAVPERSRANDCEN from the CHNAVPERS to the Chief of Naval Material (CNM).

22 May 1980 NAVMATINST 5450.27B modified the mission statement to include technical and consultant support and services to CNO in the design, development, and operation of the Navy personnel system.

1 October 1980 The Commanding Officer, NAVPERSRANDCEN, directed to report for additional duty to Deputy CNO (Manpower, Personnel, and Training) (OP-01).

6 May 1985 The disestablishment of CNM changed command and support responsibility for NAVPERSRANDCEN from CNM to Chief of Naval Research (CNR).

24 February 1986 The Secretary of the Navy changed command and support responsibility for NAVPERSRANDCEN from CNR to Space and Naval Warfare Systems Command (SPAWARSYSCOM).

27 March 1988 Management control of NAVPERSRANDCEN was transferred from SPAWARSYSCOM to CNP/Commander, Naval Military Personnel Command (NMPC). NMPC was charged with direct management of NAVPERSRANDCEN.

12 September 1991 OPNAV Notice 5450 disestablished NMPC and delegated direct management of NAVPERSRANDCEN to BUPERS.

25 September 1991 OPNAV Notice 5450 modified NAVPERSRANDCEN's mission to conduct research and development to improve the performance of individuals, teams, and organizations within the Navy and Marine Corps; to provide products and services specifically directed at improving Department of the Navy personnel planning, testing, acquisition, selection, classification, training, utilization, motivation, organization, management, and other contemporary issues; and to perform other functions as directed by higher authority.

3 October 1994 NAVPERSRANDCEN reduced a staff of 228 civilian personnel to 154, by implementing a self-imposed Reduction-in-Force.

1 October 1995 Recommendations of 1995 Base Realignment and Closure Commission (BRAC-IV) that NAVPERSRANDCEN be disestablished and its functions realigned became law. Per BRAC-IV recommendations, NAVPERSRANDCEN's manpower and personnel research missions will move to Millington, TN, for realignment under the Bureau of Naval Personnel (BUPERS) in FY98. NAVPERSRANDCEN's training research mission will realign under the Naval Air Warfare Center Training Systems Division (NAWCTSD), Orlando, Fl, in FY97.

18 September 1996 Established 1 February 1998 as the effective date for Transfer of Function of the training R&D mission to NAWCTSD.

21 November 1997 Established 7 November 1999 as the effective date for Transfer of Function of the manpower and personnel R&D mission to Navy Personnel Command (NAVPERSCOM).

1 February 1998 Classroom and Afloat Training function transfers to Naval Air Warfare Center Training Systems.

11 June 1998 NAVPERSRANDCEN receives Meritorious Unit Commendation (MUC) from the Secretary of the Navy for the period 1 March 1994 to 31 October 1996.

19 October 1998 NAVPERSCOM is established in Millington, TN, and becomes our immediate superior in command.

Organization

Mission

To conduct research and development to improve the performance of individuals, teams, and organizations within the Navy and Marine Corps. To provide products and services specifically directed at improving Department of the Navy personnel planning, testing, acquisition, selection, classification, training, utilization, motivation, organization, management, and other contemporary issues.

Philosophy

We believe people are the most valuable resource of the Navy and Marine Corps. People have the unique capability to take action based on objectives and values in rapidly changing environments. We believe, therefore, that improving the ability of people to perform their assigned tasks is necessary to maximize the effectiveness of weapon systems. Moreover, we believe our efforts will improve the quality of service life and the effectiveness of MPT, and organizational systems and result in a more effective naval force.

Vision

For the Navy and the Marine Corps, the next decade will bring an era of new missions, changing force structure, and shifting priorities. Each Service will prepare itself to be ready at all times to conduct a large number of varied operations in potentially hostile environments. New capabilities and technologies will be developed to meet the challenges of these new responsibilities and threats. Of critical importance will be the continuing need to attract and retain a professional personnel force of the very brightest and most capable young people in the nation.

Through this period and beyond, we see NAVPERSRANDCEN continuing to grow in leadership and influence as the Navy and the Marine Corps' principal center for MPT and organizational systems R&D. We will be recognized for our innovation, initiative, the teamwork of our people, and our ability to anticipate and effectively respond to change.

Our principal value will continue to be in the products and services we provide. As an integral part of the Navy and Marine Corps family, we are motivated and able to seek out and solve the most important Navy and Marine Corps problems within our mission area. We are committed to developing close working relationships with our sponsors and customers and to meeting their needs in a timely, cost-efficient, and scientifically valid manner.

Our major strength will continue to be our staff whose talents cover a broad range of technical disciplines. We are proud of the research scientists who, along with members of the support staff, contribute so much to enhancing the Center's reputation within the operational and scientific communities. We will build on this strength by developing and expanding the skills of

the present staff and hiring new individuals as needed to respond effectively to a wide variety of Navy and Marine Corps problems and opportunities.

As an R&D activity, we will continue to fulfill our responsibility to identify and test the applicability of current and emerging scientific technologies to the solution of Navy and Marine Corps MPT and organization systems problems. We will strive to maintain our recognized experience and expertise in conducting research in our six Core Programs areas: Recruiting; Selection and Classification; Personnel Planning and Policy Analysis; Distribution and Assignment; Knowledge Management Systems; and, Personnel Surveys and Program Evaluation—areas of critical functional importance to the Navy and areas rich in research opportunities. At the same time, we will develop new technologies in these area.

In pursuing this vision, we will strive for continuous improvement in the quality of our internal operations and in the products and services we provide. We will establish meaningful, measurable goals and procedures for assessing progress in attaining them. We will recognize and reward the contributions of our staff. We will remain open to change and flexible in setting future directions and strategies. We are confident that these actions, in total, will assure our continued role in helping to build a stronger and more effective Navy and Marine Corps.

Goals

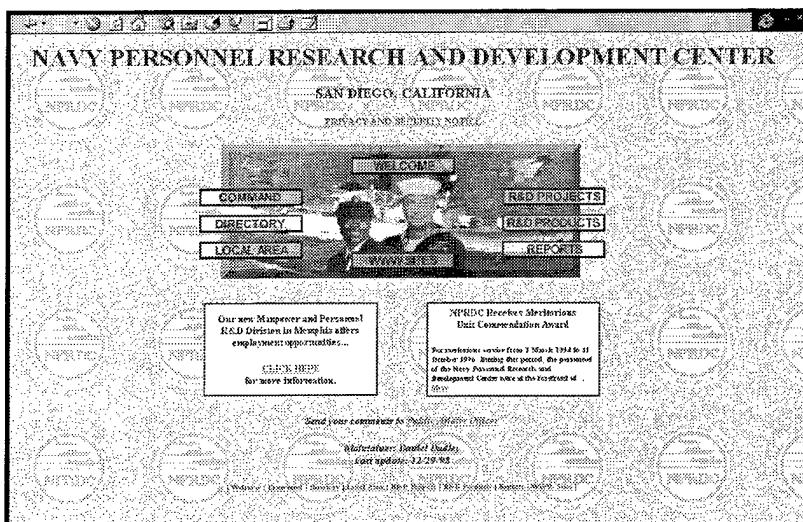
1. Design and develop MPT and organizational systems products and services that significantly enhance the ability of the Navy and Marine Corps to carry out their missions.
2. Attract, develop, and retain talented and motivated personnel through Center policies and practices that foster and reward proactive behavior, teamwork, communication, trust, risk taking, and innovation.
3. Conduct a technology base program (i.e., basic research, exploratory development, and advanced technology demonstrations) to meet Navy and Marine Corps personnel and operational requirements and to maintain scientific and technical leadership in MPT and organizational systems areas.
4. Maintain in-house scientific expertise and corporate knowledge to ensure technological innovation, “smart buyer” assistance, and real-world understanding of MPT and organizational systems requirements.
5. Anticipate future needs of NAVPERSRANDCEN sponsors and customers and meet them through use of appropriate technology, prioritization of R&D requirements, and by facilitating transitions of products into operational use.
6. Seek continuous improvement in the quality of NAVPERSRANDCEN products and services, and the way they are applied to naval systems.

Functions

1. Plans and develops effective MPT products and services for Navy and Marine Corps operational application. Provides technical assistance to support the transition and implementation of Center products.

2. Develops and maintains in-house Navy and Marine Corps scientific and technical expertise to provide corporate knowledge, corporate memory, technological innovations, “smart buyer” assistance, and real-world understanding necessary for the development and support of Navy and Marine Corps MPT.
3. Plans and conducts an effective technology base program (basic research, exploratory development, and advanced technology development) to meet existing and projected operational requirements and to maintain scientific and technical leadership in MPT areas.
4. Develops new systems and methods for determining manpower requirements, allocating manpower resources, developing personnel inventories, and distributing and assigning those inventories to improve military readiness and control costs.
5. Develops large-scale systems for managing the flow of Navy enlisted personnel (accessions, retention, promotions) to attain desired skill inventories within constraints of cost and feasibility.
6. Develops systems for constructing and executing the Navy’s manpower appropriation.
7. Designs systems for optimal job-person matches based on cost, fleet requirements, individual preferences, and a wide variety of assignment policies.
8. Develops systems for managing training resources.
9. Develops information resource management technologies (hypermedia, database management systems, user interfaces) to support manpower and personnel decision making. Develops large-scale systems for managing USMC enlisted and Navy officer personnel strength.
10. Develops systems for managing Navy recruiting efforts.
11. Develops systems for managing Navy substance abuse efforts.
12. Develops new systems and procedures for recruiting, selecting, classifying, and utilizing officer, enlisted, and civilian personnel to improve performance, satisfaction, and retention.
13. Serves as the CHNAVPERS’s primary resource to coordinate and conduct personnel surveys in the Navy and to develop new survey methodology for the Navy and Marine Corps.
14. Develops and evaluates personnel testing systems and computerized adaptive testing (CAT) versions of aptitude and classification tests. Serves as Lead Department of Defense research and development laboratory for overall management of CAT research, development, implementation, and scientific support of the system.
15. Develops training technologies to enhance personnel readiness.
16. Employs existing and emerging technologies in the development and application of training systems to alleviate Navy and Marine Corps training problems and improve the Navy’s operational readiness.
17. Develops and evaluates innovative management and leadership systems for improving the effectiveness and readiness of Navy and Marine Corps personnel and organizations.

18. Develops and evaluates innovative motivation and reward systems for improving the efficiency and effectiveness of Navy and Marine Corps personnel and organizations.
19. Develops and evaluates educational material on innovative management and leadership systems for Navy and Marine Corps personnel and organizations.
20. Develops methods, procedures, and instruments for assessing the effectiveness and efficiency of management and leadership practices in Navy and Marine Corps organizations.
21. Develops, evaluates, and applies innovative personnel assessment technology.
22. Provides independent analyses, technical advice, and consultation to research, development, test, and evaluation (RDT&E) on operational matters related to the Center's mission.
23. Investigates, defines, and addresses operational problems related to fleet personnel performance.
24. Maintains liaison with Chief of Naval Operations (CNO), Office of Naval Research (ONR), Bureau of Naval Personnel (BUPERS), and Commander Naval Education and Training (CNET) for the purpose of conducting on-site projects and assisting program sponsors on issues related to MPT management.
25. Provides information and reports to higher authority and the scientific community on the progress and accomplishments of the Center's programs.
26. Provides technical support in the development of the CHNAVPER's long range plan with regard to the infusion of appropriate technology, definition, and prioritization of RDT&E requirements and the transition of products into operational use.
27. Develops and maintains liaison with Navy, DoD, and civilian research development, training, and education organizations for the exchange of information and the establishment of cooperative efforts in MPT.



NAVPERSRANDCEN's web site at <http://www.nprdc.navy.mil> continues to receive high praise from both military and civilian personnel. According to NAVPERSRANDCEN's Public Affairs Officer, Ed Thomas, the site has been instrumental in attracting prospective new hires who are interested in working in the Millington, TN, area where NAVPERSRANDCEN will move in November 1999. The NAVPERSRANDCEN web site makes it easy and convenient for prospective employees to gather information about the positions.

Center Resources

Funding

NAVPERSRANDCEN operates under the RDT&E Resources Management System. Under this system, the final fiscal responsibility resides with the Commanding Officer and certain financial responsibilities are delegated to cost center managers. The reporting procedures associated with the Resources Management System provide financial information for both internal management and higher authority.

The principal mission sponsor and prime "customer" for Center RDT&E products is BUPERS/NAVPERSCOM. Significant sponsorship also comes from the CNR, the Marine Corps, and other Navy and DoD organizations including the Systems Commands. The majority of RDT&E that the Center conducts is supported by directly funded projects. A small portion of the funds are independent research and independent exploratory development. In addition, a substantial portion of research, development, and analysis consists of "reimbursables," specific problem solving efforts requested by, and supported with, funding from other organizations.

NAVPERSRANDCEN's funding for of FY98 was \$17.6 million. Distribution, source, and appropriation of funds are shown in Figure 3.

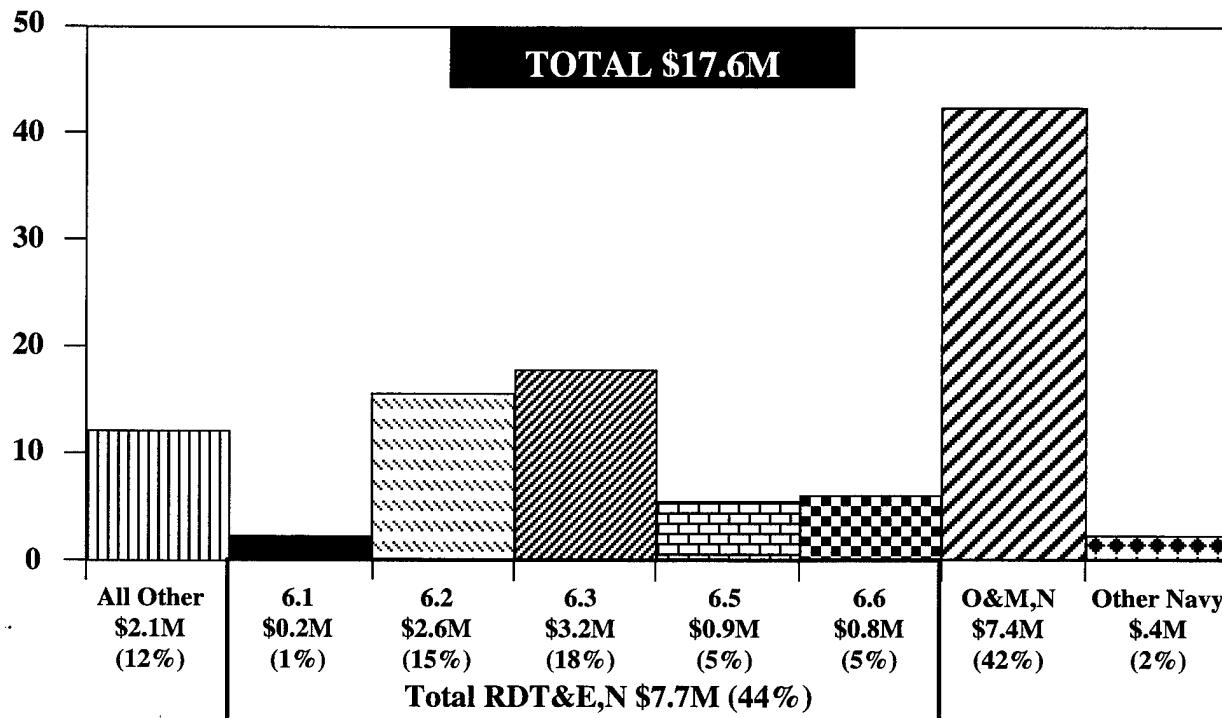


Figure 3. FY 1998 Funding by Appropriation (17.6M, 30 September 1998).

Personnel

Because R&D programs at NAVPERSRANDCEN are mission-oriented, it is essential that the research force be multidisciplinary so that early consideration may be given to alternative approaches in research endeavors. The Center's staff is creatively diverse and equipped to meet this prerequisite.

As of 30 September 1998, the staff numbered 82 civilian personnel. Of the civilians, 60 are professional and technical personnel representing a variety of disciplines. Of the professional and technical staff, 60% hold advanced degrees. The military staff numbered 10, consisting of line officers and senior enlisted personnel. The military personnel offer extensive fleet and subject-matter expertise that helps ensure the operational relevance of NAVPERSRANDCEN's R&D endeavors. This broad personnel base allows NAVPERSRANDCEN to maintain a highly effective, multidisciplinary team approach to its R&D.



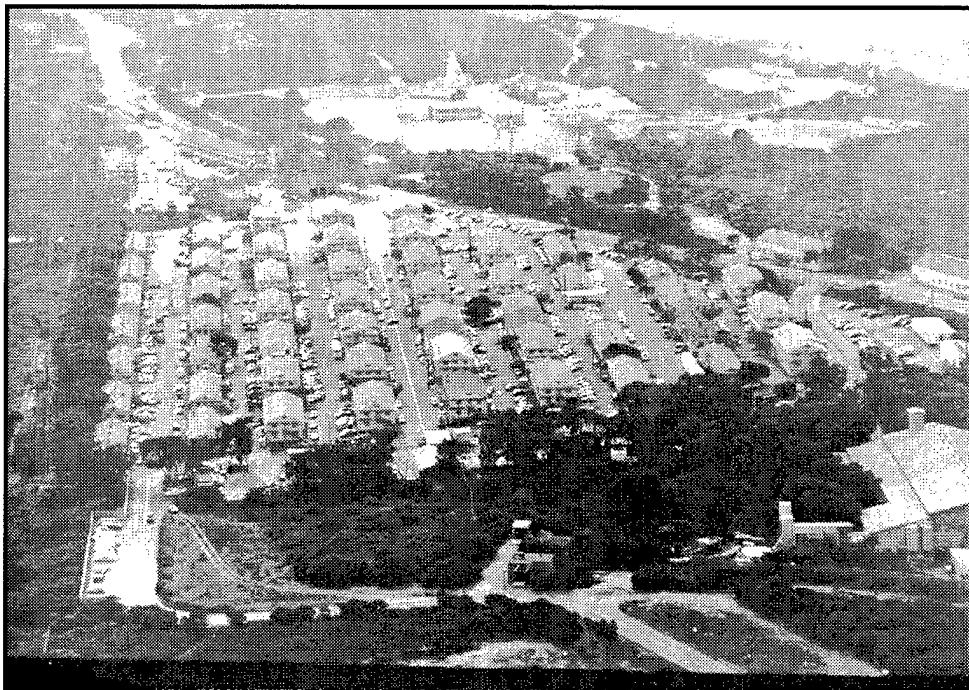
A group of NAVPERSRANDCEN employees enjoy lunch at the May 20th EEO "Diversity & Us" program at the Center's Flagpole area. The event featured guest speakers, multicultural dancers, displays, and a potluck luncheon that included food samplings from all over the world. Many employees dressed in the fashion of their ancestor's homeland and also prepared food dishes from that region for the potluck.



Facilities

NAVPERSRANDCEN is located on Point Loma in San Diego, CA, with support offices in Washington, DC. and Millington, TN. In addition to office space for research and support personnel, the following research facilities are housed at the Center:

- **Research Computing Facility (RCF)** provides general Unix-based computing services and access to the Defense Data Network for Center research and support staff. The facility provides computational and electronic mail support for research in areas of artificial intelligence, computer-assisted instruction, cognitive science, testing, and training. The RCF equipment suite includes file servers and numerous peripherals.
- **Manpower and Personnel Computing Facility (MAPCOM)** provides general purpose IBM-based computing services for Center researchers and administrative operations. The facility is supported by the Manpower Systems Department. It is specially equipped to serve psychologists, economists, mathematicians, and computer scientists whose research requires the organization and analysis of large data files, the development of large-scale mathematical models, the design of information delivery systems, and general-purpose scientific computing. The MAPCOM features an IBM 4381/92E, multiple tape drives, and over 74G in disk storage.



The barracks at NAVPERSRANDCEN were constructed at the beginning of WWII. After the war the buildings were taken over by the Naval Electronics Laboratory.

In March 1951, two of the barracks buildings were given to a field team of military personnel conducting occupational analysis onboard ships in the San Diego area. These two barracks became the home of the Navy Personnel Research Unit, San Diego.

Research and Development Program

The R&D program at NAVPERSRANDCEN addresses three functional areas: Workforce Management, Personnel and Organizational Assessment and Classroom and Afloat training. Within these three functional areas are seven product lines, each of which has one or more projects.

Workforce Management

Develops new systems and methods for determining workforce requirements, allocating workforce resources, developing personnel inventories, and distributing and assigning those inventories to improve military readiness and control costs.

- **Force Management**—Develops large-scale systems for managing the flow of Navy enlisted personnel (accessions, retention, promotions) to attain desired skill inventories within constraints of cost and feasibility. Develops systems for constructing and executing the Navy's manpower appropriation.
- **Assignment Systems**—Designs systems for optimal job-person matches based on cost, fleet requirements, individual preferences, and a wide variety of assignment policies. Develops systems for managing training resources.
- **Information Support**—Develops information resource management technologies (hypermedia, database management systems, user interfaces) to support manpower and personnel decision making. Develops large-scale systems for managing USMC enlisted and Navy officer personnel strength. Develops systems for managing Navy recruiting and substance abuse efforts.

Personnel and Organizational Assessment

Develops systems and procedures for recruiting, selecting, classifying, utilizing and managing the training of officer, enlisted and civilian personnel to improve performance and retention. Psychological and sociological technologies are applied to provide solutions to personnel problems. Serves as the CNO primary personnel survey resource to coordinate and conduct attitude surveys in the Navy and Marine Corps and to develop new survey technologies. Conducts research, development, test, and evaluation on DoN organizations. The principal criteria are effectiveness, quality of products and services provided, efficiency, timeliness, and costs.

- **Individual Assessment**—Develops effective and efficient methods for selecting, classifying, and assigning military personnel. Performs development and evaluation of cognitive and non-cognitive measures of individual differences, and of performance-related criterion measures. Performs research to develop comprehensive person-job matching models. Provides operational direction and technical support for all computer-based aptitude testing.

- **Organizational Assessment and Development**—Conducts organizational assessments to determine appropriate changes needed to meet efficiency and effectiveness goals. Designs, develops, and evaluates interventions and change strategies that evolve from these assessments. Conducts research on methods of management assessment and methods of providing management training. Investigates issues associated with managing a diverse force and develops technologies to enhance performance and improve force readiness. Develops systems to evaluate the effectiveness of quality of life programs and to improve the quality of personnel survey data.

Classroom and Afloat Training

Conducts and RDT&E program to employ existing and emerging technologies in the development and application of training systems to alleviate Navy training problems; increase the effectiveness of this training, while decreasing its costs; and, improve the Navy and Marine Corps operational readiness.

- **Training Systems**—Develops Navy training systems that will best meet the Navy's needs for skilled personnel while enabling officers and enlisted personnel to achieve their personal career goals. Conducts research into the design, delivery, and management of training to ensure maximum readiness of Navy and Marine Corps combat forces. Investigates the technical and operational feasibility of emergent training programs and systems.
- **Instructional Simulations**—Develops advanced instructional technologies for use in training complex conceptual tasks. Conducts research into the design of simulation-based training systems, which incorporate high fidelity models of physical phenomena and sensor systems so as to provide advanced training for expert-level performance.

Other research efforts include developing and testing innovative methods to design, administer, and evaluate management and professional training. In addition, job aids are developed and tested to determine their effects on workload accomplishment.



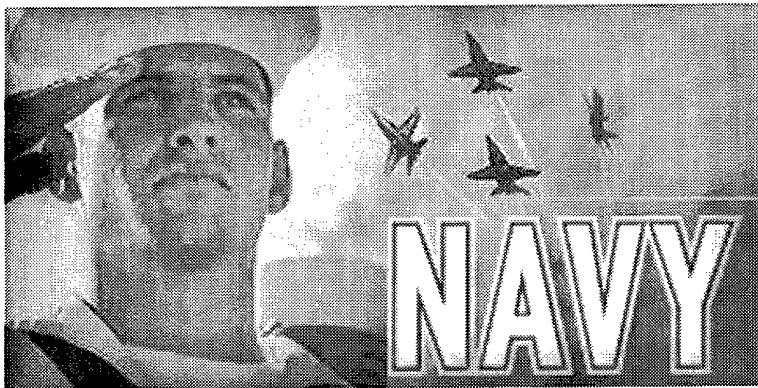
Members of NAVPERSRANDCEN's Classroom and Afloat Training function (Code 13) gather together for a final group photo taken at a Bldg. 319 Farewell Potluck Party and Awards Ceremony on 8 January 1998.

As part of BRAC-IV's recommendations, NAVPERSRANDCEN's training research mission was realigned under the Naval Air Warfare Center Training Systems Division (NAWCTSD), Orlando, FL. The transfer was effective 1 February 1998.

Fleet Liaison Office

NAVPERSRANDCEN maintains a Fleet Liaison Office (FLO) to maintain liaison with Fleet Commands, Type Commands, Systems Commands, CNO Agencies, and R&D Centers in matters related to NAVPERSRANDCEN's mission areas, and serves as the Center's focal point for investigating and responding to requests for technical assistance. It monitors, on a continuing basis, operational problems, requirements, and priorities to determine RDT&E implications, provides on-site consultative services to operational commands, and performs special projects as needed and facilitates the implementation of the Center's R&D products and research visions like SAILOR21, which is detailed below. The FLO serves as the Center's agent for the Navy Science Assistance Program and is closely linked to this program's management, training, and quality assurance.

SAILOR21



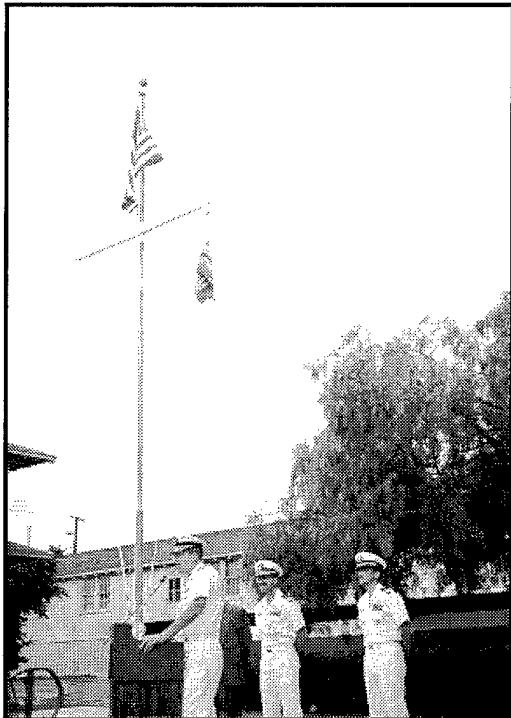
Classification; Personnel Planning and Policy Analysis; Distribution and Assignment; Knowledge Management Systems; and Personnel Surveys and Program Evaluation. The document's purpose was to envision how the Navy would adapt in those areas during the next five to ten years from now as a result of successful R&D. NAVPERSRANDCEN's CO and TD both gave briefings up the Navy's chain of command. The document was given high marks for its visionary look into the future, so much so, that NAVPERSRANDCEN is receiving inquiries from other military branches who are facing the same people-related problems as the Navy.

As excerpted from the SAILOR21 document, "...Unlike many 'vision' documents that are produced with great fanfare and then lie fallow, we intend for SAILOR21 to be an evolving, and truly 'living' document. We hope that it will be the nexus of discussion and debate for manpower and personnel research among sponsors, customers, and scientists. We also intend for it to be a charter or agenda for defining and guiding manpower and personnel research for the next five to ten years. Finally, we hope SAILOR21 will produce greater understanding of, broad advocacy for, and commitment to our program and yield the resources to carry it out."

In the latter part of 1998 NAVPERSRANDCEN produced a research vision document entitled, SAILOR21: A Research Vision to Attract, Retain, and Utilize the 21st Century Sailor. As the Navy's manpower and personnel research laboratory, NAVPERSRANDCEN organized SAILOR21 around its six Core Programs which include: Recruiting; Selection and

Awards

Center Wins Prestigious MUC Award



RADM William R. Schmidt, Prospective Deputy Chief of Naval Personnel, addresses NAVPERSRANDCEN personnel at an 11 June 1998 All-Hands Ceremony where the Secretary of the Navy's Meritorious Unit Commendation (MUC) Award was presented. The awarding and raising of the MUC pennant (pictured) was part of the Ceremony.

Citing meritorious service from 1 March 1994 to 31 October 1996, the commendation states: "For meritorious service from 1 March 1994 to 31 October 1996. During this period, the personnel of the Navy Personnel Research and Development Center were at the forefront of research and development in the area of manpower, personnel, and training. Their close working relationship with sponsors and customers, coupled with a commitment to innovation, initiative, and teamwork allowed them to apply cutting-edge technology to provide solutions to a wide variety of Navy and

Marine Corps problems. Systems such as the Interactive Multisensor Analysis Training, Navy Training Reservation System, Computerized Adaptive Test-Armed Services Vocational Aptitude Battery, Job Assignment Selection System, Navy Personnel Survey and Navy Equal Opportunity and Sexual Harassment Survey, and Navy Drug Screening Program, Skilled Personnel Projection for Enlisted Retention, Command Assessment Team Survey System, Navy Class Scheduler, Future Generation Detailer Decision Support System, Standard Personnel Measures, and Integrated Damage Control Training Technology impact all levels of the Navy, affecting senior policy and decision makers, ship and squadron commanding officers, and the deckplate Sailors that are the backbone of our Navy. The superior achievements of the Navy Personnel Research and Development Center attest to the outstanding technical ability and dedication of the entire staff. By their unrelenting determination, perseverance, and steadfast devotion to duty, the officers, enlisted personnel, and civilian employees of the Navy Personnel Research and Development Center reflected credit upon themselves and upheld the highest traditions of the United States Naval Service."

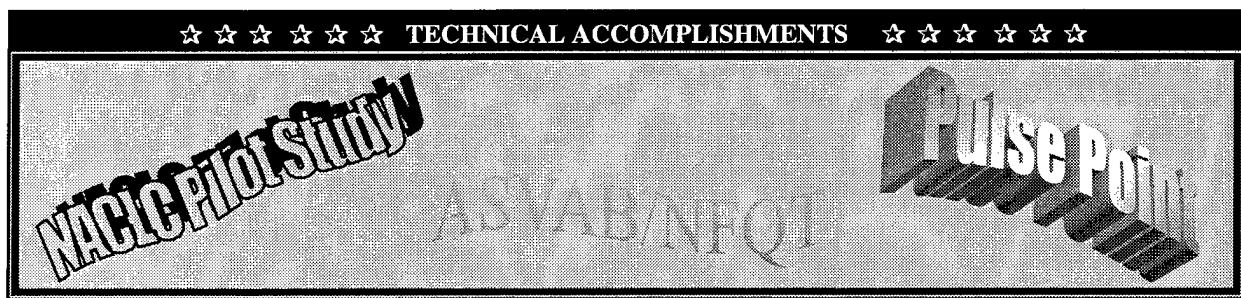
"...the personnel of the NPRDC were at the forefront of research and development in the area of manpower, personnel, and training. Their close commitment to innovation, initiative, and teamwork allowed them to apply cutting-edge technology to provide solutions to a wide variety of Navy and Marine Corps problems."

Award Winning Technical Accomplishments¹

NACLC Pilot Study—Thomas Trent completed the National Agency Check/Local Agency Check (NACLC) Pilot Study, whose operational use is expected to reduce the number of enlisted accessions with serious criminal backgrounds and reduce misconduct and unsuitability attrition and associated fleet turbulence. The objectives of the study were to (1) determine the reliability of recruits' self-reports or pre-service law violations, (2) determine the effectiveness of expanded enlistment background checks to discover arrest records, as compared to current screening procedures, and (3) assess the logistical feasibility of conducting national and local law enforcement investigations at enlistment. Following Mr. Trent briefing the results of the NACLC Pilot Study, RADM McGann, Commander Navy Recruiting Command (CNRC), directed that NACLC be implemented for all Navy recruits as soon as possible.

Armed Services Vocational Aptitude Battery/Nuclear Field Qualifying Test (ASVAB/NFQT)—Ms. Janet Held has conducted the ASVAB/NFQT Standard Assessment, a 2-year effort examining ways to streamline and reduce the 8 multiple composite cut scores to qualify recruit applicants to Nuclear Field MM, EM, and ET Ratings. Ms. Held identified two single alternative ASVAB composites most predictive of A- and N-Power school performance and demonstrated the validity of retaining NFQT as an additional screen. She recommended new eligibility standards for Nuclear Field ratings that increase the eligibility pool by twenty-five percent and reduce projected school attrition by four to five percent. Rear Admiral McGann, CNRC has endorsed Ms. Held's recommendation and is sending a letter to Admiral Bowman, Director of Nuclear Reactors, for implementation.

Pulse Point—Amy Culbertson, Paul Rosenfeld, and Zannette Uriell developed Pulse Point, a computer-based customer satisfaction survey system being implemented Navy-wide starting October 1998 with the first training of 30 people occurring in Rota, Spain. It will subsequently be trained at seven additional sites world-wide, and offered as a tool to 156 Navy MWR sites for assessing customer support as the beta version of the software is implemented and refined. The team also established a Pulse Point web site as part of the HQ's Navy MWR web page, and will provide ongoing support and software updates using web technology.

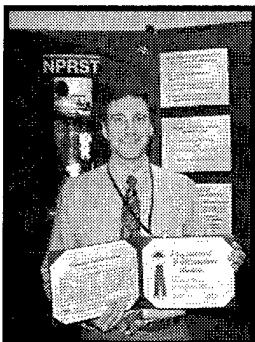


¹ The Technical Director's award provides individuals and work teams immediate recognition for exemplary technical accomplishment contributing to the Center Mission. As an applied research center, NAVPERSRANDCEN's principal goal is to apply state-of-the-art technology to solve emerging problems affecting Navy and Marine Corps personnel readiness. The attainment of this goal is manifested in tangible products of operational use to Navy and Marine Corps commands. The focus of this special award is on those exemplary technical accomplishments that result in products of significant value to particular user commands.

Professional Publications Award

Publications recognized for significant contributions to the scientific and technical literature during 1998:

Advancing Theoretical Knowledge category:



Steve Watson

Watson, S., & Kramer, A. F. (In Press, 1998). Object-based visual selective attention and perceptual organization. *Perception and Psychophysics*.

"This article documents a series of research studies designed to address important questions concerning the role and function of selective attention and perceptual organization. The results provide insights into complex processes and serve as a strong catalyst to further exploration, refinement, and advances in the field."

Applied Scientific Contribution category:



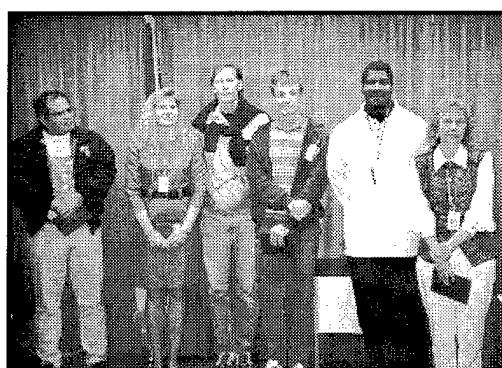
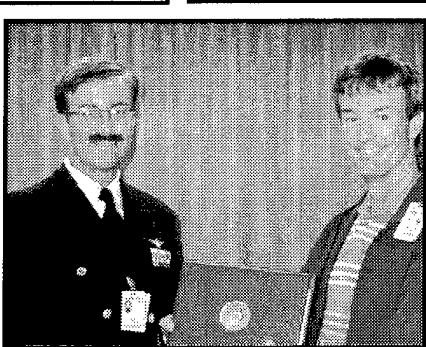
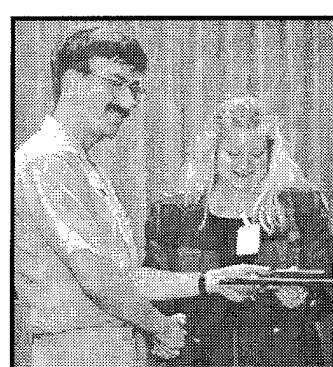
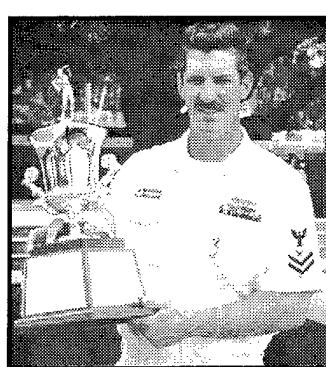
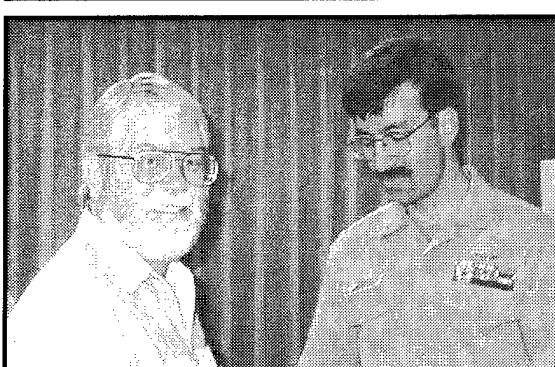
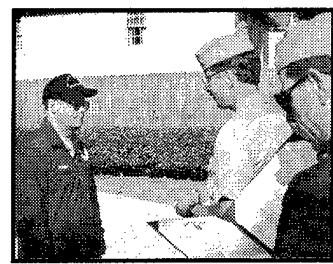
Zannette (Perry) Uriell

Thomas, P. J., Edwards, J. E., Perry, Z. A., & David, K. M. Racial differences in male Navy officer fitness reports. *Military Psychology*, Vol 19 (2), 127-143.

"This study focused on a very important but controversial issue regarding potential differences in fitness reports as a function of race. The research examined subtle forms of discrimination that may be operating within a management-oriented rating system and outlines pitfalls to be avoided. The results have practical implications for both military and civilian settings."

Awards Ceremonies

Throughout the year, NAVPERSRANDCEN holds a number of Awards Ceremonies to recognize the extraordinary efforts of both its civilian and military personnel. On the next page are photographs taken at some of these memorable occasions including the First, Second, Third, and Fourth Quarter Awards, the Commanding Officer's Award, and the Technical Director's Award Ceremonies.

AWARDS**AWARDS****AWARDS****AWARDS****AWARDS**

Publications²

Technical Reports

Czech, C., Walker, D., Tarker, B., Ellis, J. A. (1998) *The Interactive Multisensor Analysis Training (IMAT) System: An Evaluation of Airborne Acoustic Mission Course (NPRDC-TR-98-2)*. San Diego: Navy Personnel Research and Development Center. (AD-A338 076)

MacMillian, J., Freeman, B., Tatum, B. C., Ropp, G. A. (1998) *Evaluation of a Software User Coach for Manpower Planning (NPRDC-TR-98-5)*. San Diego: Navy Personnel Research and Development Center. (AD-A350 160)

MacMillian, J., Getty, D. J., Tatum, B. C., Ropp, G. A. (1998) *A Technique for Assessing the Congruence Between Visual Metaphors and Mental Models (NPRDC-TR-98-4)*. San Diego: Navy Personnel Research and Development Center. (AD-A350 206)

Parchman, S. W., Ellis, J. A., Christinaz, D., Vogel, M. (1997) *An Evaluation of Three Computer Based Instructional Strategies in Basic Electricity and Electronics Training (NPRDC-TR-98-1)*. San Diego: Navy Personnel Research and Development Center. (AD-A332 176)

Tatum, B. C., Laabs, G. J., Nebeker, D. M. (1998) *A Performance-Based Approach to Human Readiness (NPRDC-TR-98-3)*. San Diego: Navy Personnel Research and Development Center. (AD-A347 255)

Thomas, P. J., Uriell, Z. A. (1998) *Pregnancy and Single Parenthood in the Navy: Results of a 1997 Survey (NPRDC-TR-98-6)*. San Diego: Navy Personnel Research and Development Center. (AD-A353 976)

Technical Notes

Culbertson, A. L., Perry, Z. A., Shmavonian, G., Rosenfeld, P. (1998) *The 1997 Marine Corps Morale, Welfare, and Recreation Needs Assessment (NPRDC-TN-98-11)*. San Diego: Navy Personnel Research and Development Center (AD A)

Culbertson, A. L., Rosenfeld, P., Perry, Z. A. (1998) *The Consultant's Guide for Marine Corps Equal Opportunity Advisors (NPRDC-TN-98-10)*. San Diego: Navy Personnel Research and Development Center (AD-A348 895)

Culbertson, A. L., Thomas, P. J., Harden, J. P. (1998) *The Role of Recreation in Facilitating Gender Integration in the Navy (NPRDC-TN-98-12)*. San Diego: Navy Personnel Research and Development Center (AD A351 098)

² Unclassified, public release only.

Technical Notes (Continued)

Kantor, J., Ford, M., Olmstead, M. (1997) *Navy-wide Personnel Survey (NPS) 1990-1996: Summary of Trends (NPRDC-TN-98-3)*. San Diego: Navy Personnel Research and Development Center (AD-A332 917)

Kantor, J., Ford, M., Olmstead, M. (1998) *Navy-wide Personnel Survey (NPS) 1997: Statistical Tables for Enlisted Personnel (NPRDC-TN-98-9)*. San Diego: Navy Personnel Research and Development Center (AD-A286 970)

Kantor, J., Ford, M., Olmstead, M. (1998) *Navy-wide Personnel Survey (NPS) 1997: Statistical Tables for Officers (NPRDC-TN-98-8)*. San Diego: Navy Personnel Research and Development Center (AD-A286 970)

Kerce, W. W., Rosen, H. (1998) *Assessment of USMC QOL Program Contributions to Readiness, Performance, and Retention Volume 1: Design and Methodology (NPRDC-TN-98-6)*. San Diego: Navy Personnel Research and Development Center (AD-A338 073)

Landau, S., Dickason, D., Randel, J., Palmisano, G. (1998) *Virtual Environment Training for Engineers (VET-E): Material Readiness Assessment (NPRDC-TN-98-7)*. San Diego: Navy Personnel Research and Development Center (AD-A338 055)

Lewis, G. W., Ryan-Jones, D. L. (1997) *Drug Abuse Prevention Training: Feasibility of Electrophysiological Assessment (NPRDC-TN-98-5)*. San Diego: Navy Personnel Research and Development Center (AD-A335 227)

Militello, L. G., Hutton, R. J. B., Pliske, R. M., Knight, B. J., Klein, G., Randel, J (1997) *Applied Cognitive Task Analysis (ACTA) Methodology (NPRDC-TN-98-4)*. San Diego: Navy Personnel Research and Development Center (AD-A335 225)

Thomas, M. D., Thomas, P. J. (1997) *The Nature of Gender Discrimination in the Navy (NPRDC-TN-98-1)*. San Diego: Navy Personnel Research and Development Center. (AD-A335 230)

Administrative Publications

Bibliography of Reports and Journal Articles Approved for Public Release: FY97 (NPRDC-AP-98-1). San Diego: Navy Personnel Research and Development Center. (AD-A346 337)

Command History Calendar Year 1997 (NPRDC-AP-98-2). San Diego: Navy Personnel Research and Development Center. (AD-A348 972)

In-House Laboratory Independent Research (ILIR) Annual Report: 1997 (NPRDC-AP-98-3). San Diego: Navy Personnel Research and Development Center. (AD-A352 374)

Journal Articles and Book Chapters

McBride, J. R., Wetzel, C. D., Hetter, R. D.. (1997). Preliminary psychometric research for CAT-ASVAB: selecting an adaptive testing strategy. *Computerized adaptive testing: from inquiry to operation* (pp 83-95).

Rafacz, B., Hetter, R. D. (1997). ACAP hardware selection, software development, and acceptance testing. *Computerized adaptive testing: from inquiry to operation* (pp 145-156).

Segal, D. O., Moreno, K. E., Kieckhafer, W. F., Vincino, F. L., McBride, J. R. (1997). Validations of the experimental CAT-ASVAB system. *Computerized adaptive testing: from inquiry to operation* (pp 103-114).

Umpingco, V., Hom, I., Rafacz, B. (1997). Development of a system for nationwide implementation. *Computerized adaptive testing: from inquiry to operation* (pp 209-218).

Vincino, F. L., Moreno, K. E. (1997). Human factors in the CAT system: a pilot study. *Computerized adaptive testing: from inquiry to operation* (pp 157-160).

Distribution List

Deputy Chief of Naval Operations (N1), (N12R)
Commander, Navy Personnel Command (PERS-00), (PERS-05)
Chief of Naval Operations (Historian)
Defense Technical Information Center (DTIC) (2)